

SEMICONDUCTOR STRUCTURES AND MANUFACTURING METHODS

Abstract of the Disclosure

A semiconductor body having an alignment mark comprising a pair of sets of parallel lines disposed on the semiconductor body, the parallel lines in one of the sets being disposed orthogonal to the parallel lines in the other one of the set, the two sets of parallel lines being in an overlaying relationship. Also, a method and apparatus for detecting an alignment mark on a semiconductor body. The method and apparatus provide an alignment illumination comprising a pair of orthogonal, lines of impinging light which is scanned over the surface of the alignment mark, one of such pair of impinging light lines being orthogonal to, and laterally displaced from, the other one of such pair of impinging light lines, impinging light being reflected by the alignment lines in the surface of the semiconductor when such impinging light is over to provide a pair of laterally displaced beams of reflected light. The method includes detecting in a each one of a pair of laterally spaced detectors a corresponding one of the laterally displaced beams of reflected light.